



Name: _____

Date: _____

5A Exercises

Integrating Transcendental Functions

Evaluate the Integral

17. $\int \frac{1}{7x - 2} dx$

19. $\int \frac{\sin x}{1 + \cos x} dx$

20. $\int \frac{\ln \sqrt{x}}{x} dx$

21. $\int_1^4 \frac{2x + 1}{2x} dx$

49. $\int_0^1 xe^{-3x^2} dx$

51. $\int \frac{e^{4x} - e^{2x} + 1}{e^x} dx$

$\int 12^x dx$

$\int x(2^{4x^2}) dx$

$$55. \int_1^3 \frac{e^x}{e^x - 1} dx$$

$$71. \int (x + 1)5^{(x+1)^2} dx$$

$$85. \int \frac{1}{e^{2x} + e^{-2x}} dx$$

$$86. \int \frac{1}{3 + 25x^2} dx$$

Hint: factor e^{-2x} out of the bottom

$$87. \int \frac{x}{\sqrt{1 - x^4}} dx$$

$$88. \int \frac{1}{16 + x^2} dx$$

$$89. \int \frac{\arctan(x/2)}{4 + x^2} dx$$

$$90. \int \frac{\arcsin 2x}{\sqrt{1 - 4x^2}} dx$$

Find the area shown (from 0 to 1)

$$91. y = \frac{4 - x}{\sqrt{4 - x^2}}$$

